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TWO NEW THYSANOPTERA FROM FLORIDA[1]

By J. R. WATSON AND J. R. PREER

***Sophiothrips bicolor* n. sp.**

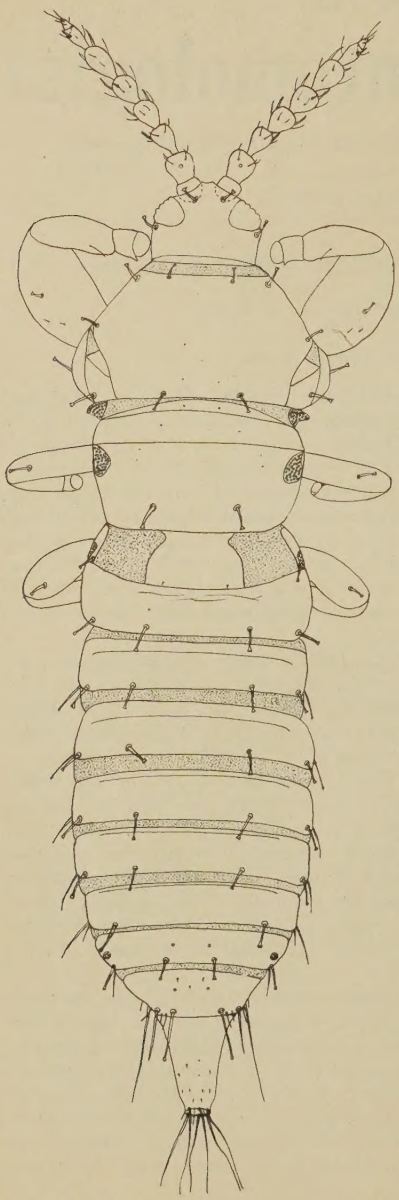
MACROPTEROUS FEMALE:—Length about .9 mm. Color of head and thorax brown (raw umber) (Ridgeway's color Standards), basal half of femora and antennal segment III shaded with the same color; abdomen, tibiae, tarsi, and apical portions of femora primrose yellow (Ridgeway), tube somewhat deeper yellow, antennal segments I-VII considerably lighter (Marguerite yellow—Ridegway). Forewings grayish brown in apical half, basal fourth darker especially at base, gradually changing to an almost colorless band just below the middle. Hind wings with a conspicuous median colorless streak bordered on each side by a dark line which is much darker on posterior side. A narrow band along each border almost colorless.

Head but little wider than long, retracted far into prothorax, only a little wider in the single paratype, cheeks nearly straight and parallel except for a shallow notch immediately behind the eyes and a slight rounded protuberance immediately posterior. Dorsal surface very faintly reticulated, somewhat angularly produced in front of eyes, bearing in front of each posterior ocellus a heavy spine (about 26 microns long), dark except for the widely expanded apex which has sharply toothed margins. These are the largest bristles on the head. Postocular (?) bristles very similar (23 microns long) situated close to outer angles of eyes and very close to lateral margin of head. A minute bristle behind each posterior ocellus and a similar one near the inner posterior angle of each eye. Eyes rather large, occupying rather more than half the lateral profile of the head, each one about three-fourths the width of their interval; dark; facets rather small.

Ocelli rather large, situated opposite anterior half of the eyes and close to their margins, bordered by wide, dark red crescents. Mouth cone reaching three-fourths distance across prosternum, broadly rounded at apex.

Antennae twice as long as head. Base of first segment overhung by vertex, almost square in outline; II, oval with a short, very broad pedicel; III top-shaped with a long, narrow pedicel, cones near apex only about half as long as this segment, curved but not bent under segment IV; IV broadly oval with practically no pedicel, sense cones larger than those

[1]Contribution from the Department of Entomology, Florida Agricultural Experiment Station.



Sophiothrips bicolor nov. sp., Apterous ♀, dorsal, paratype. J. R. Preer, Cam. Luc.

on III but only about half as long as the segment; V similar in shape but with a short, broad pedicel; VI oblong-oval with a short narrower pedicel, VII-VIII a lanceolate mass with suture between the segments plainly visible, VII with short broad pedicel, VIII sharply conical in shape, terminal bristle very much longer than the segment.

Prothorax (including coxae) in width nearly twice the median length of pronotum, which is considerably larger than the head. Setae *stout* and *broadly capitate* similar to those of the head; posterior marginals about 33 microns long, midlaterals somewhat shorter, anterior laterals still smaller, anterior marginals situated nearer the median line than the lateral border, as long and heavy as the marginals, coxals nearly as long and heavy, all straight and dark. Fore tarsus with a tooth which is decidedly shorter than the width of the tarsus. Forewing without accessary bristles.

Abdomen short and heavy, segments two to six provided with a pair of long dark, conspicuous capitate bristles on posterior border about midway between the median line and the lateral border. These are about as long as those in front of the ocelli. Midway between these and the lateral border, extending also to segments 7 and 8, is a series of more slender pale bristles, those on segment 9 nearly as long as tube, terminal bristles somewhat longer than the tube. Tube a little shorter than the head, abruptly contracted to the apex, heavily chitinized and prominently ridged. Terminal bristles a little longer than the tube.

Measurements of type: Head, length .12 mm., width .125 mm.; prothorax, median length .14 mm., width (including coxae) .25 mm.; pterothorax, greatest width .25 mm.; abdomen, greatest width .24 mm. Tube, length .10 mm., width at base .05 mm., at apex .026 mm. Antennae, total length .24 mm. Segments, length (greatest width): I, 21(23); II, 35(28); III, 38(23); IV, 35(26); V, 35(26); VI, 40(24); VII, 23(16); VIII, 21(10) microns.

APTEROUS FEMALE:—Color of type similar to that of the macropterous female; fore and middle femora largely brown but shading gradually lighter apically, hind femora shaded with brown only on anterior margin.

Head fully as long as wide. Ocelli lacking. Otherwise very similar to macropterous female. Measurements almost identical.

Total body length varying from .63 mm. to .92 mm. in paratypes. Prothorax nearly .4 longer than head.

APTEROUS MALE:—Very similar in color to apterous female. Averaging a little smaller, from .57 mm. to .87 mm. in paratypes. Fore femora varying greatly in size. In the type immense, .09 mm. wide and .21 mm. long, fully as wide as the head and longer than prothorax. Tooth on fore tarsus very large, longer than the width of the joint, triangular in shape. Tube shorter and wider at base than in apterous female. Otherwise measurements very similar. In some paratypes the fore femora are scarcely larger than in the female.

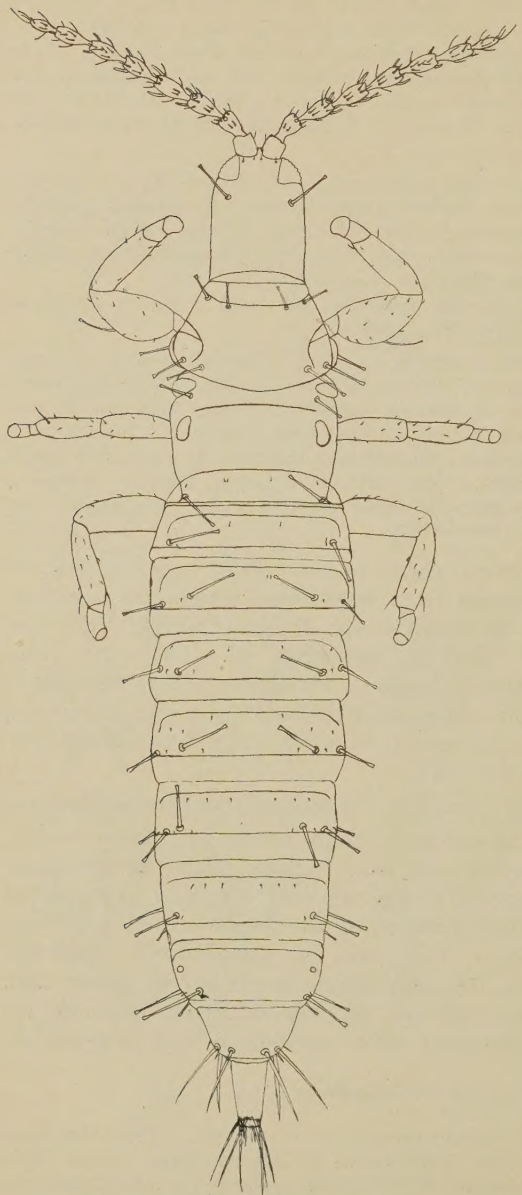
Described from three macropterous and 10 apterous females and six males. Collected from dead leaves under live oak trees December 15, 1935, Marion County, Florida, March, 1936, and August, 1933, and Alachua, December 15, 1935; and from "Spanish Moss" *(Dendropogon)*, Alachua County, September 26, 1938; Lake County, May 12, 1933, and from scrapings from the bark (lichens and moss) of a live oak tree, Monticello, Florida, September 13, 1927.

Types in author's collection. Paratypes in National Museum.

This strikingly colored insect undoubtedly belongs to *Sophiothrips*, hitherto reported only from Panama, although the spines on antennal segments III-VI are not nearly as long as described by Hood in his characterization of the genus and do not curve under the segments in front, and the prothorax is distinctly longer than the head. In other characters it agrees closely with the characters of the genus as described by Hood. Its color will serve to readily separate it from *squamosus* and *panamensis*.

***Eurythrips robustisetis* n. sp.**

APTEROUS FEMALE:—Body length 1.0 to 1.8 mm. Color yellowish brown by transmitted light, dark brown by reflected light. Tarsi, distal ends of femora and tibiae and first antennal segment (in some individuals the second also) and pedicel of third brownish yellow; antennal segments



Eurythrips robustisetis n. sp., ♀ paratype, dorsal. Camera Lucida. J. R. Preer, 1938.

III-VIII and tube dark brown; head and body with much subcutaneous pigment, purplish red by transmitted light, bright crimson by reflected.

Head about one and one-fourth times as long as wide, cheeks slightly arched, diverging slightly posteriorly, very slightly contracted behind the eyes. Dorsum smooth. Postocular bristles very long (75 microns in the type), projecting well beyond the head, strongly capitate, brown, with both base and apex colorless, situated close to eyes. Two pairs of minute ones midway between eyes and base and postocellars also minute. Vertex extending slightly over the bases of the antennae. Eyes small, showing five or six facets along the front margin. Orange by reflected light and almost black by transmitted. Ocelli lacking. Mouth cone short, hardly reaching the middle of prosternum. Antennae over twice as long as head but slender. Segments 3 to 8 with narrow but short pedicels

those of segments 6 and 7 particularly so; 2 cup-shaped, 3 clavate, 4 ovoid, 5-7 oblong oval, 7 long, conical.

Prothorax .7 as long as head and, including coxae, twice as wide as long. A strong (47 microns long) brown, capitate bristle at each anterior angle and a pair of similar but longer ones (59 microns) along anterior margin. A pair at each posterior angle as long as the postoculars, and similar ones on each coxa, mid-laterals minute.

Pterothorax about as wide as prothorax including coxae.

Legs about color of body but tibiae and femora darkened along the margins, lighter at ends. Fore tarsus unarmed.

Abdomen slender for a Eurythrips. The posterior angles of each segment provided with dark robust setae, capitate except those on the 9th segment which are pointed; a single one on segments 1 and 2, two on segments 3 to 8 (the inner of which is decidedly longer than the outer), three on the 9th segment, about as long as the tube.

Tube about two-thirds as long as the head. Three pairs of terminal bristles about as long as the tube.

Measurements of the type which is larger than any of the paratypes: Total length 1.8 mm. Head, length .18 mm., width .16 mm.; prothorax, length .14 mm., width (including coxae) .28 mm.; pterothorax, width .30 mm.; abdomen, width .33 mm.; tube, length .13 mm., width at base .07 mm., at apex .037 mm.

Antennal segments; length (breadth):—I, 42(35); II, 47(30); III, 56(26); IV, 64(28); V, 57(26); VI, 54(26); VII, 51(21); VIII, 47(15) microns. Total length .42 mm.

MALE (apterous):—Very similar to the female but smaller.

Measurements of type: Total body length 1.2 mm. Head, length .16 mm., width .14 mm.; prothorax, length .12 mm., width (including coxae) .23 mm.; pterothorax, greatest width .23 mm.; abdomen, greatest width .26 mm.; tube, length .11 mm., width at base .066 mm., at apex .033 mm. Antennal segments, length (width):—I, 35(30); II, 40(25); III, 47(26); IV, 47(28); V, 47(23); VI, 44(21); VII, 44(19); VIII, 40(12) microns. Total length .34 mm.

Described from nine females and two males taken from decaying leaves of live oaks in Putnam County, Florida, June 21, 1936, and decaying pine needles in Alachua County, April 4, 1938.

In its color, long setae with strongly dilated tips and the absence of sculpture on the dorsum it resembles *E. macrops* Hood but differs in the heavy dark colored setae, the large anterior marginal ones on the prothorax, the color of the hypodermal pigment, the narrower antennal segments, and the much shorter tube.

The

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WELCOME, ENTOMOLOGISTS

The FLORIDA ENTOMOLOGIST, speaking for the entomologists of Florida, extends a most cordial and sincere welcome to the members of the entomological profession of the South upon the occasion of the meeting of the Cotton States Branch of the American Association of Economic Entomologists at Tampa next February 21, 22 and 23. This meeting, which is being held under the joint sponsorship of the Florida Entomological Society and the Newell Entomological Society, promises to be one of the most interesting, profitable and pleasurable of the Branch Association in recent years. The local committee have exerted themselves to that end. The preliminary program, in so far as scientific papers are concerned, is well rounded. The general plans have been outlined on the basis of "all work and no play, etc.", and entertainment features will be of such a character as to afford adequate relief from the paper reading sessions. Especial attention is directed to the trip on the 22nd to the Lake Alfred Citrus Experiment Station, where state and federal entomological workers will put on a large-scale demonstration of spraying and dusting methods for pest control. The most highly developed methods and equipment will be shown. This field trip will also afford opportunity to visit the famed Bok Tower and surrounding gardens near Lake Wales, where a carillon concert will be given. On this same trip a large slice of Florida's citrus plantings will be seen. On

the paper program featured speakers will present discussions on important and timely subjects. Dr. Lee A. Strong will discuss certain phases of the plant quarantine situation and Professor S. C. Bruner, Entomologist attached to the Cuban Agricultural Experiment Station at Santiago de las Vegas, has been invited to present a paper on entomology in Cuba. E. R. Sasscer, President of the American Association of Economic Entomologists, will bring greetings from the parent organization.

The annual banquet will be an informal dinner-dance held at one of Tampa's famous Spanish restaurants. The atmosphere, the setting, the food, and even the floor show will be typically Spanish. Ample provision is also being made for the entertainment of visiting ladies. Among other features will be a bridge party for ladies on Monday evening, the 20th, at the Hillsboro, headquarters hotel.

This publication is advised that the Cuban Secretary of Agriculture has invited the Southern Entomologists to make a post convention visit to Cuba and observe the agricultural, especially entomological, work being done there. Numerous courtesies will be extended the visitors. Doctor J. T. Creighton, Chairman of the Committee of Arrangements, has been in touch with officials of the P. & O. Steamship Company operating to Havana out of Tampa and Miami, and has been assured of especially attractive rates, including an all expense tour, for the benefit of those attending the convention.

Again we say "Welcome", and you may be assured that the entomologists of Florida will do all in their power to make your visit pleasant, profitable, and one long to be remembered.

The following account is taken from the preliminary notice of the meeting put out by the association:

"The Hillsboro Hotel in Tampa is convention headquarters where all sessions will be held and exhibits installed. Special rates at The Hillsboro for the convention are $2.50 and $3.00 per day for single rooms with private bath and $3.50 to $7.00 per day for double rooms with private bath. A suite of two rooms with connecting bath for party of four can be obtained for $1.75 per person per day. Other hotels near the Hillsboro are as follows: DeSoto and Knox (same rate as Hillsboro);

Bayview, Lafayette, Thomas Jefferson and Park (rates lower than Hillsboro); Floridian and Tampa Terrace (rates higher than Hillsboro). On account of the tourist season in Florida at the time of our meeting, reservations for hotel accommodations should be made immediately.

"Ample exhibit space has been provided in the lobby and in large rooms at the Hillsboro Hotel. The exhibits will be a special feature of the Tampa meetings, and those planning to have exhibits at Tampa should contact the Hillsboro Hotel for space.

"The meeting this year will feature citrus insects, the white-fringed beetle, pink boll worm, sweetpotato weevil, blackfly and plant quarantines. Special entertainment has been planned for the ladies and delegates are urged to bring their wives and families. This will include a special Carillon recital, visit to Cypress Gardens, parties, tour of night clubs, etc. Low rate steamer service from New Orleans to Tampa is available for those coming from the western part of the Branch territory. There is a sailing from New Orleans every Saturday afternoon between 12 and 1 o'clock, the steamer arriving in Tampa Monday morning between 7 and 8 o'clock. The rate is $20 one way and $36 for the round trip."

A BRIEF HISTORY OF THE FLORIDA ENTOMOLOGICAL SOCIETY

The Florida Entomological Society came into existence January 5, 1916, when eleven men interested in entomology met at the University of Florida in Gainesville. The *Entomological News* of March 1916, in noting the formation of this Society, stated that this was the first Entomological Society organized in the Southern States. The first officers were: President, J. R. Watson, Experiment Station; Vice-President, Wilmon Newell, Plant Commissioner; Secretary-Treasurer, R. N. Wilson, U. S. Bureau of Entomology; Member of the Executive Committee, H. S. Davis, Department of Zoology, University of Florida. The founders must have been a very enthusiastic group of men for the Society had a remarkably rapid growth. During the first year it more than quadrupled its membership and by the end

of 1917 it boasted nearly one hundred active members and twenty associate members.

The ideals of the new Society were very simply stated as follows: "The aim of the Society is to stimulate an active interest in entomology on the part of Floridians". It is evident that they early achieved their purpose for in 1917 a group of twelve men in Fort Myers formed the Lee County Entomological Society, which on January 28, 1918, became affiliated with the Florida Entomological Society as a branch society.

Though the Society did not always maintain the large membership attained in its early years, it never-the-less has had a continuous existence since its beginning. In December 1938 the Society petitioned the American Association of Economic Entomologists for affiliate membership in that organization. The petition was granted by action of the Executive Committee at the Richmond meeting.

At the April 1917 meeting of the Florida Entomological Society, Dr. E. W. Berger made a proposal that the Society publish a periodical to be known as "The Florida Buggist". This proposal was at once acted upon and the first issue containing twelve pages appeared June 21, 1917. This first issue is of particular interest at this time because it contains this note: "March 29, 30 and 31, the Association of Cotton States Entomologists held their meetings at the University of Florida." Other interesting items of this issue are accounts of the early meetings of the Society and a roll of its members.

Three volumes of *The Florida Buggist* were published, the last issue under this name appearing in April 1920. At the meeting of February 23, 1920, the Society voted to change the name of its publication to its present name "THE FLORIDA ENTOMOLOGIST". Since its beginning as *The Florida Buggist,* the periodical has been published as a quarterly journal and is now in its twenty-second volume. In addition to publishing accounts of the doings of the Society and notes on insects that are of interest at the time, the FLORIDA ENTOMOLOGIST devotes a great deal of space to original contributions on entomological subjects. These cover many different phases of entomological endeavor including economic, systematic, biological, and morphological studies.

A. N. TISSOT, *Secretary*

THE NEWELL ENTOMOLOGICAL SOCIETY

By JOHN T. CREIGHTON

The founding of the Newell Entomological Society grew out of a sincere desire upon the part of the students and faculty of the Department of Entomology of the University of Florida to contribute in a large measure of their services to that phase of the Natural Sciences to which they had dedicated their lives; while materially facilitating the advancement and stabilization of human society.

The first meetings were held during the fall of 1935 and the organizers were wholehearted in favor of naming the society in honor of Doctor Wilmon Newell who is now the Provost of Agriculture of the University of Florida.

In forming the Newell Entomological Society the founders gave careful consideration to the constitution and by-laws. The constitution lists the following objectives: (1) to promote the study of entomology; (2) to encourage research and teaching relative to insects and related Arthropods in the State of Florida; (3) to assimilate and disseminate widely knowledge of pure science, economic, and popular entomology, to the end that the layman shall develop a broader sense of appreciation of the necessity for and the importance of the many phases of the science; (4) to bring about a closer cooperation between all entomological organizations and phases of the science; (5) to publish a semi-annual journal to be known as RETAQ; (6) to sponsor the annual Florida Entomological Conference.

The installation ceremony for the Newell Entomological Society was held in February 1936, during the first annual Florida Entomological Conference. Doctor Herbert Osborn of Ohio State University was the featured speaker for this occasion. The second annual conference was held in March 1937 at which time the Herbert Osborn birthday banquet was held. Featured speakers were Doctor Lee A. Strong, Doctor Z. P. Metcalf, Doctor W. S. Blatchley, Doctor E. W. Berger, and Doctor Wilmon Newell. The third conference was held in March 1938 at which time Doctor Henry T. Fernald was honored. Featured speakers were Doctor Dwight M. DeLong, Doctor John J. Tigert, Mr. A. S. Madden, and Doctor H. Harold Hume. The fourth annual Florida Entomological Conference will be

held in conjunction with the annual meeting of the Cotton States Branch of the American Association of Economic Entomologists at Tampa, February 20-24, 1939. Past presidents of the Society were Mr. W. P. Hunter (1935-1936), Mr. P. S. Arey (1936-1937), Mrs. Juliet Carrington (1937-1938). The president for the current scholastic year is Mr. James P. Toffaleti.

There are four kinds of membership in the Society, as follows: (1) Undergraduate and Graduate students. (2) Graduates. (3) Associate members. (4) Honorary members. The graduate membership is designed to maintain a warm relationship between the graduates and the department of the college where they obtained their professional training.

Meetings are held semi-monthly, and local or out of town speakers are invited to address the Society. Talks are not necessarily limited to entomological subjects, but topics of a general agricultural interest are encouraged. Attendance of students is mandatory and unexcused absences constitute sufficient grounds for recommendations by the executive committee that offenders be dropped.

In December, 1938, the Society voted to petition the American Association of Economic Entomologists for affiliate society privileges. This petition was presented by the writer to the American Association during the annual meetings at Richmond, Virginia, in December, and was favorably acted upon by the National Association. This act marks the first time in the history of the National Association that a student society has been granted affiliation privileges. This grant immediately focused national attention upon the Junior Society. Thirteen graduate members of the Newell Entomological Society were voted into active membership in the National Association.

A THIRD OF A CENTURY OF EXPERIENCE

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CARLOS C. GOFF

Mr. Carlos C. Goff, Assistant in Entomology, Florida Agricultural Experiment Station, and member of the Florida Entomological Society, died on January 13, 1939, at Leesburg, Florida, age 34 years. He was a graduate of the University of Illinois, receiving his B. S. degree in 1928 and his M. S. in 1931. He also spent a year in graduate work at the University of Michigan.

Mr. Goff did notable work on root-knot, and on the life history of "salamanders" and "gophers".

He suffered a severe blow in February, 1937, in the death of his wife, who was also a graduate of the University of Illinois (see FLORIDA ENTOMOLOGIST, Volume 20, No. 1, page 5). He leaves a daughter, Eva, parents, and a brother and sister.

Mr. Goff was a very tireless worker, a very agreeable and lovable and promising young man. The Florida Experiment Station, our Society and science in general suffers severely in his untimely death.

Between 1927 and 1930 he served as assistant in entomology in the Natural History Survey in Illinois. He was a member not only of our Society but of the American Society of Mammalogists, Ecology Society of America, and the American Society of Ichthyologists and Herpetologists, the Wild Life Society, and the Florida Academy of Science.

This and the following list of his publications shows his wide interests.

FLINT, W. P. and GOFF, C. C.
1929 Banding for codling moth control. Jour. Econ. Ent., Vol. 22, pp. 675-679.

GOFF, C. C. and GOFF, DOROTHY S.
1932 Egg laying and incubation of *Pseudemys floriadana*. Copeia, No. 2, pp. 93-94.

———— and TISSOT, A. N.
1932 The melon aphid, *Aphis gossypii* Glover. Fla. Agr. Exp. Sta. Bul. 252, pp. 1-23.

———— and GOFF, DOROTHY S.
1935 On the incubation of a clutch of eggs of *Amyda ferox* (Schneider). Copeia, No. 3, p. 156.

1935 A case of melanism in *Lepisosteus osseus*. Copeia, No. 1, p. 41.

1935 An additional note on *Phrynosoma cornutum* in Florida. Copeia, No. 1, p. 45.

1935 Mice and "Gopher" in watermelon fields. Fla. Agr. Exp. Sta. Bul. (Press) 470, pp. 2.

1936 Relative susceptibility of some annual ornamentals to root-knot. Fla. Agr. Exp. Sta. Bul. 291, pp. 1-15.

1936 Distribution and variation of a new subspecies of water snake, *Natrix cyclopion floridana*, with a discussion of its relationships. Occ. Papers of the Museum of Zoology, Univ. of Mich., No. 327, pp. 1-9, Plate 1.

——— and WILSON, J. W.
1937 The pepper weevil. Fla. Agr. Exp. Sta. Bul. 310, pp. 1-12.

WATSON, J. R. and GOFF, C. C.
1937 Control of root-knot in Florida. Fla. Agr. Exp. Sta. Bul. 311, 22 pp.

1937 Importance of bees in the production of watermelons. Florida Entomologist, Vol. 20, No. 2, pp. 30-31.

A CORRECTION

In the last number of the ENTOMOLOGIST, Volume 21, No. 4, page 62, "A Remarkable Flight of Butterflies", a mistake crept in. The estimate of abundance was one butterfly per cubic yard of space instead of a cubic foot as given in the article.

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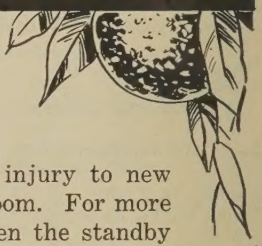

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